

A close-up photograph of a water splash, showing two distinct peaks of water rising from a surface, with numerous small droplets suspended in the air above. The water is a vibrant blue, and the background is a lighter, hazy blue.

# 2002 WATER QUALITY REPORT



PWS ID#: MA3307000



## Continuing Our Commitment

We are once again proud to present to you our annual water quality report. Over the years, we have dedicated ourselves to producing drinking water that meets or exceeds all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering the best quality drinking water to you. As regulations and drinking water standards change, it is our commitment to you to incorporate these changes system-wide in an expeditious and cost-effective manner. If you have any health concerns relating to the information in this report, we encourage you to contact your health care provider.



As we enter our 108th year of providing public water service, we will be vigilant in maintaining our objective of providing quality drinking water at an affordable price. Currently, this objective is achieved through the operation of municipally owned water treatment facilities for each of Walpole's two aquifers. The H. E. Willis Plant, located on Leonard Road, which has provided many years of service to the community, will soon be replaced with a more technologically advanced treatment system to further improve the quality. Construction is scheduled to be completed in November 2003. The Edward J. Delaney Plant (formerly School Meadow Brook) has been operating for several years and continues to provide the desired level of treatment.

The office of the Water Department is located on the second floor of the Town Hall, at 135 School Street. The normal office hours are Monday through Friday from 8:00 a.m. to 4:00 p.m. For more information about this report, or for any questions relating to your drinking water, please call Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7307.



## Community Participation

The Board of Sewer & Water Commissioners holds regularly scheduled meetings on the second and fourth Monday of each month. Those wishing to attend or participate in meetings should look for the postings in the Town Hall or call the secretary for details at (508) 660-7309. The Board will be discussing this report at 7:30 p.m. on Monday, June 9, 2003. The public is invited to attend the meeting, which will be held at the Edward J. Delaney Water Treatment Plant, located at 1303 Washington Street.

## Where Does My Water Come From?

The water supply for the Town of Walpole consists of groundwater, which is drawn from two underground water-bearing formations, called aquifers, which were created thousands of years ago, at the end of the Great Ice Age.

The School Meadow Brook Aquifer, located in the southern section of town, currently has seven wells that provided nearly three-quarters of the water that was pumped during 2002. The Mine Brook Aquifer, located in the west-northwestern section of town, has three operational wells. A fourth (Mine Brook #2) is currently undergoing renovation and is scheduled for reactivation in 2003. To view a map of our well locations, please feel free to visit the Water Department Office.

As an alternative source of water, Walpole has interconnections with the towns of Foxboro and Norwood. These connections, which are located on Washington, Water and Union Streets, have not been used in recent years; however, they are maintained on a regular basis to ensure their availability if needed.

## Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground can become contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continually jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We continue to survey industrial, commercial and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer that we have on record to make sure that it is providing maximum protection.

For more information, visit the Web site of the American Backflow Prevention Association for a discussion on current issues ([www.abpa.org](http://www.abpa.org)).





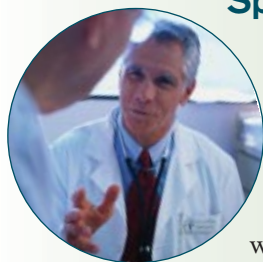
## Lead in Drinking Water

Over the course of the year, the Water Department collected two rounds of water samples and had them analyzed for lead and copper. Each consisting of 60 samples, the first round was collected in January and the second round was collected in July. In both rounds of testing only four of the sites exceeded the lead Action Level of 15 ppb. Even though this is not a violation, the Water Department offers the following educational statement.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. To reduce lead content, flush your tap for 30 seconds to 2 minutes before using tap water.

For more information, please contact National Lead Information Center, at (800) LEAD-FYI, and the Safe Drinking Water Hotline, at (800) 426-4791.

## Special Health Information



Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

## Substances Expected to Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

### Conserving water inside your home:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Turn off water while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

### Conserving water outdoors:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at [www.epa.gov/safewater/publicoutreach/index.html](http://www.epa.gov/safewater/publicoutreach/index.html).



What's in My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. Over the course of each year, the Water Department conducts more than 400 water quality tests looking for bacteria, nitrate, volatile organic contaminants and total trihalomethanes. For your information, we have compiled the table below to show what substances were detected in our drinking water during 2002. Although all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	1999	15	0	0.8	NA	No	Erosion of natural deposits
Beta/photon emitters (pCi/L) <sup>1</sup>	1999	50	0	10	NA	No	Decay of natural and man-made deposits
Dichloromethane (ppb)	2002	5	0	0.90	ND-0.90	No	Discharge from pharmaceutical and chemical factories
Fluoride (ppm)	2001	4	4	1.02	0.86-1.02	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2002	10	10	0.7	0.37-0.7	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2002	80	0	56.2 <sup>2</sup>	11-120.7	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from 60 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	1.3	0.72	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2002	15	0	9.0	8	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE (LOW-HIGH)	TYPICAL SOURCE
Bromodichloromethane (ppb)	2002	7.0	2.1-7.0	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2002	2.1	ND-2.1	By-product of drinking water disinfection
Chloroform (ppb)	2002	86	2-86	By-product of drinking water disinfection
Sodium (ppm)	2001	40	16-40	Erosion of natural deposits and road de-icing agents

Table Definitions

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**NA:** Not applicable

**ND:** Not detected

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

<sup>1</sup>The MCL for Beta/photon emitters is written as 4 mrem/year. EPA considers 50 pCi/L as the level of concern for beta emitters.  
<sup>2</sup>Amount detected is the highest running annual average.